KEYSTONE XL PIPELINE PROJECT HISTORIC TRAIL AND ARCHAEOLOGICAL MONITORING PLAN U. S. DEPARTMENT OF STATE

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1.0 BACKGROUND

TransCanada Keystone Pipeline, LP (Keystone) has been issued a Presidential Permit for the Keystone XL Pipeline Project (Keystone XL Project or the Project). The Department of State (DOS) has developed a Programmatic Agreement (PA) for the Project because the effects on potential historic properties could not be fully assessed for all properties prior to the issuance of the Presidential Permit. For the purposes of this plan, the term "historic property" is defined as

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (see 36 C.F.R. § 800.16(l)(a)).

Consistent with the PA and its associated coordination and treatment plans, Keystone will have completed the cultural resources surveys so that appropriate avoidance, minimization, and treatment measures are implemented and completed prior to construction. Under Stipulation V of the PA, DOS prepared this Historic Trail and Archaeological Monitoring Plan (Monitoring Plan or Plan) to address cultural resources monitoring during the construction of the Keystone XL Project.

Keystone is committed to working with DOS, the consulting parties, the National Park Service (NPS) and other federal agencies further reducing the potential for impacts on historic trails and other historic properties including roads, ruts, archaeological sites, structures, buildings, natural landmarks, and the general cultural landscape. This Historic Trail and Archaeological Monitoring Plan is in addition to a Tribal Monitoring Plan. Both plans are required under Stipulation V of the PA and are appended to the Keystone XL Pipeline Project PA as separate documents. The Tribal Monitoring Plan is not a substitute for this Plan. All consulting parties and agencies have had opportunities to review and comment on these plans. The Historic Trail and Archaeological Monitoring Plan has been updated to include the results of all surveys and fieldwork that have occurred through September 2017.

2.0 SUMMARY

Keystone will hire archaeologists to monitor specific areas during ground disturbing activities related to Project construction. The locations requiring monitoring have been identified through past cultural resources surveys and inventories, surveys performed for this Project, and the Section 106 consultation process. A list of the areas identified by DOS and SHPOs is included in Table 8-1 in this plan. Keystone will continue to coordinate with DOS during the Section 106 consultation process and will adhere to this Monitoring Plan should any other areas require cultural resources monitoring.

Monitors are required to meet the qualifications identified in Section 6.0 of this document, must have adequate training to work on the right-of-way, and must follow strict communication protocols while in the field.

The monitors will focus on the identification of previously unidentified historic properties (historic or precontact) during construction. These monitors will be positioned at specified locations during Project construction to monitor grading and/or trenching activities. Should any trail segments require monitoring, the monitor will also provide assistance with the identification of materials related to the historic trails including roads, ruts, archaeological sites, structures, buildings, natural landmarks, and the general cultural landscape.

3.0 OBJECTIVE

The objective of the historic trail and archaeological monitoring program is to minimize the potential for adverse effects to previously identified and unidentified historic properties from the Project activities and to assist with the implementation of the Unanticipated Discoveries Plans in the PA. This Plan identifies the locations where monitoring is required, stipulates the required qualifications for cultural resource monitors, and outlines a communication plan for the monitors in the event that previously unidentified historic properties are encountered in the course of construction.

4.0 PROCESSES

The locations requiring construction monitoring for this Project have been determined by the DOS in consultation with the NPS, SHPOs, Indian tribes, and other federal agencies and is based upon the survey work completed for the Project. Keystone will implement the monitoring work to assist the DOS in meeting its responsibilities consistent with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Keystone will continue to consult with the DOS and will implement this Plan at additional locations if the DOS determines that construction monitoring is required at those locations.

5.0 CULTURAL RESOURCE MONITORS

Cultural resource monitors will work collaboratively with Keystone's Environmental Inspection Team in an advisory role to assist the Project in achieving compliance with the PA, including the Coordination Plan, this Monitoring Plan, the Tribal Monitoring Plan, Unanticipated Discoveries Plans, and any Treatment Plans to protect known historic properties (as defined by the SHPO in each state) that are eligible, or potentially eligible, for listing in the National Register of Historic Places as well as historic properties that may be discovered during construction.

Position Description:

• During ground-disturbing activities, such as grading and trenching, in areas identified in Table 8-1, the historic trail and archaeological monitors will provide assistance with the identification of historic properties that have not been previously identified.

- Monitors should review the coordination plan and verify through field examination that
 areas requiring a reduction in active right-of-way space (necking down) or avoidance
 fencing are properly staged before construction work occurs.
- Monitors will report and communicate directly with the Lead Environmental Inspector (Lead EI) assigned to each work area and may not direct construction personnel or equipment.
- It is the responsibility of the monitor to actively observe and report, as required by the PA and any applicable Unanticipated Discoveries Plan, any potential historic property not previously identified through surveys or human remains found either on the surface or subsurface within the Project boundaries.
- Monitors are required to adhere to the PA and report to Keystone's Lead EI if a potential historic property is discovered that has not already been identified and deemed not eligible. Keystone will conduct the appropriate reporting to federal and state regulatory agencies as outlined in the PA communication protocol.
- Monitors are responsible for reporting daily and weekly activities in a manner that describes the areas and activities monitored, any issues or concerns that were encountered, and how the issues or concerns (if any) were resolved. The reports should be submitted in writing to the Lead EI. Monitors are part of the construction team and, as such, are required to participate in safety and environmental training on site, as well as in tailgate meetings. They must abide by all safety rules and wear the required protective equipment at all times while on site.
- Construction will occur Monday through Saturday and may, under certain circumstances, also occur on Sunday. Monitors are expected to be available during all work hours.
- At the start of each work day, monitors must report to the Lead EI at the applicable spread office at the prescribed time in order to receive daily safety and information briefings. A monitor may not work on a given day if he or she fails to attend this briefing, unless Keystone, at its discretion, provides a supplemental briefing.
- Lead EIs will seek the advice and input of monitors, if available, when unanticipated discoveries are encountered, and will consider their input when implementing the terms of the PA and the Unanticipated Discoveries Plan.
- If a potential historic property is encountered, the monitors will notify the Lead EI immediately.
- Monitors shall meet the professional standards outlined in Section 6.0 of this Plan.

6.0 QUALIFICATIONS OF CULTURAL RESOURCE MONITORS

Historic trail and archaeological monitoring shall be carried out by or under the direct on-site supervision of a professional archaeologist who meets, at a minimum, the Secretary of the Interior's Historic Preservation Professional Qualification Standards (48 FR 44716, September 29, 1983). All monitors should have demonstrated experience in monitoring construction activities and be knowledgeable of changes in soil color and deposition that may be associated with cultural materials.

7.0 TRAINING

All monitors will be required to satisfactorily complete a one-day comprehensive training focused on the activities on the pipeline right-of-way. Completion of this program is compulsory. It is required that the monitors also attend the multi-day environmental/safety trainings provided to all on-site personnel.

All monitors will be required to attend the pre-construction training as coordinated by the prime contractor prior to any monitoring activity. The training program consists of two phases: environmental training and safety training. These training programs are conducted by the Keystone prime contractor's environmental and safety professionals and will commence in the morning of the first day of monitoring for each spread.

8.0 AREAS TO BE MONITORED

The locations requiring construction monitoring has been determined by the DOS in consultation with the NPS, SHPOs, and other consulting parties. These areas are outlined in Table 8-1 in this document. Keystone will implement this Monitoring Plan to assist the DOS in meeting its responsibilities under NEPA and Section 106 of the NHPA. Keystone will continue to consult with DOS and will implement this Plan at additional locations, should it be determined that construction monitoring is required.

8.1 Cultural Resources Monitoring

Table 8-1 indicates specific areas near previously identified historic properties (and potential historic properties) that DOS recommends for archaeological monitoring. If the specific area is avoided prior to construction, then no monitoring of that area is required. Additional potential historic properties may be identified as the Section 106 Process continues. Monitoring is recommended in the following circumstances:

- Where construction activities will not directly impact a known site, but occur immediately adjacent to one or more sites;
- To ensure site avoidance; and
- To ensure that site boundaries have been correctly defined.

The monitoring areas in Montana, South Dakota and Nebraska have been defined by multiple surveys carried out for the centerline, access roads, and ancillary facilities. Monitoring in all of these instances has been proposed by the applicant and agreed to by DOS and the applicable SHPO.

Areas of cultural or religious significance to Indian tribes identified in the context of consultations with tribes or Traditional Cultural Properties surveys conducted by tribes are not listed below. See the Tribal Monitoring Plan (Attachment E), the Summary of Identification and Evaluation Efforts (Attachment G), and the Programmatic Agreement for more information.

Table 8-1 Cultural Resources to be Monitored along Centerline

State	Site Number	Site Type	Recommended Activities
	24PH4313	Stone Circle	Fence and Monitor
	24PH4372	Stone Cairn	Fence and Monitor
	24PH4373	Stone Cairn	Neck Down, Fence and Monitor
	24PH4162	Stone Feature	Fence and Monitor
	24VL0938	Stone Feature	Mitigate, Fence and Monitor
	24VL2082	Stone Circle	Neck Down, Fence and Monitor
	24VL1933	Stone Circle	Fence and Monitor
	24VL0972	Stone Feature, Historic Fence Line	Fence and Monitor
	24VL0962	Stone Feature, Lithic Scatter, Historic Artifact Scatter	Fence and Monitor
	24VL1919	Stone Circle	Mitigate, Fence and Monitor
	24VL1965	Stone Circle	Mitigate, Fence and Monitor
Montana	24VL1903	Stone Circle	Fence and Monitor
	24VL0805	Stone Cairn	Fence and Monitor
	24VL1269	Stone Circle	Fence and Monitor
	24VL1912	Homestead	Fence and Monitor
	24VL1920	Artifact Scatter	Fence and Monitor
	24VL1194	Canal	Fence, Monitor, Mitigate
	24VL1194	Canal	Fence, Monitor, Mitigate
	24MC0461	Stone Circle	Fence and Monitor
	24MC0481	Stone Cairn	Fence and Monitor
	24MC0628	Farmstead	Fence and Monitor
	24MC0485	Open Camp	Fence and Monitor
	24MC0486	Open Camp	Fence and Monitor
	24DW0560	Open Camp	Mitigate, Fence and Monitor
	24DW0561	Stone Circle	Fence and Monitor
	24DW0289	Canal	Fence, Monitor, Mitigate
	24DW0289	Canal	Fence, Monitor, Mitigate
	39MD0850	Schoolhouse	Fence and Monitor
South Dakota	39MD0835	Artifact Scatter	Fence and Monitor
	39JN0051	Farm	Fence and Monitor
Nebraska	25AP89	Base Camp / Unidentified	Mitigate, Fence and Monitor

9.0 COMMUNICATIONS

Keystone has established clear lines of communication and reporting within the Project team and the environmental compliance organization. To facilitate construction compliance and monitoring, the overall pipeline route is divided into smaller sections, or spreads, of varying lengths. Construction and environmental oversight at the spread level is provided by a team assigned to each spread. Cultural resource monitors will be required to report to the Lead EI responsible for the spread within which the work is taking place. The Lead EI will coordinate the construction monitoring program.

Keystone will be responsible for administering the Monitoring Plan and will retain cultural resource monitors that meet the Professional Qualifications noted in Section 6.0 of the PA.

Historic trail and archaeological monitors will work together with Lead EIs to assist in reducing effects to previously identified and unidentified historic properties and perform monitoring activities in areas targeted prior to construction. If a historic trail that is also a potential historic property is discovered, the parties will follow the terms of the communications protocol established in this document, the PA, and all local, state and federal laws governing the protection and discovery of archaeological and cultural resources. Historic trail and archaeological monitors will communicate with the Lead EI assigned to each work area and will not direct construction personnel or equipment. The authority to stop work will rest with the Lead EI and Keystone construction and Project management team.

At the start of each work day, historic trail and archaeological monitors will report to the Lead EI they are assigned to at the prescribed time in order to receive daily safety and information briefings. Failure to arrive at the designated briefing time will preclude the monitor's ability to participate on that day unless Keystone, at its discretion, is able to provide a supplemental briefing. Lead EIs will seek the advice of historic trail and archaeological monitors, if available, when unanticipated discoveries are encountered, and will consider their input. If any issues develop, monitors will communicate with the assigned Lead EI.

10.0 REPORTING

Monitors will be required to complete written daily reports and weekly activity reports that describe the areas monitored and will provide the reports to the Lead EI. The reports will describe methods used, the findings during monitoring, evaluation of the cultural material recovered, any additional interpretation of the material recovered, and curation arrangements. Those reports will be compiled and given to the Lead EI. Copies of the monitor's reports will be forwarded to DOS, the applicable SHPOs, and NPS for areas where monitoring is occurring at locations identified in Table 8-1.